Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. 14. (canceled)
- 15. (currently amended) A method for determining temperature <u>within a sealed</u> <u>container</u> comprising the steps of:

mixing a solvent with a compound to create a saturated solution within the sealed container;

allowing vapor of the saturated solution to equilibrate <u>within the sealed</u> <u>container</u>;

taking chromatographic readings of the equilibrated vapor; and calculating a temperature based upon the chromatographic readings.

- 16. (original) The method of Claim 15 wherein the solvent comprises a liquid.
- 17. (original) The method of Claim 16 wherein the solvent comprises n-dodecane.
- 18. (original) The method of Claim 16 wherein the solvent comprises noctadecane.

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- 19. (original) The method of Claim 15 wherein the compound comprises a solid.
- 20. (original) The method of Claim 19 wherein the compound comprises naphthalene.
- 21. (original) The method of Claim 19 wherein the compound comprises anthracene.
- 22. (original) The method of Claim 15 wherein said mixing step comprises the step of mixing a solvent with a compound to create a saturated solution within a sealed container having a headspace, and wherein said allowing step comprises the step of allowing vapor of the saturated solution to equilibrate in the headspace of the sealed container.
- 23. (original) The method of Claim 15 wherein said calculating step comprises the step of calculating a temperature based upon the chromatographic readings of the equilibrated vapor, wherein the temperature calculation is based upon the concentrations of the solvent and the compound in the equilibrated vapor.

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- 24. (original) The method of Claim 23 wherein the chromatographic readings comprise readings of peak areas of the solvent and the compound.
- 25. (original) The method of Claim 24 wherein said calculating step comprises the step of calculating a temperature based upon a ratio of the readings of peak areas of the solvent and the compound.